

REMARKS

Claims 1-7 are currently pending in this Application, claims 8-16 having been withdrawn from consideration.

Claims 1, and 5-7 have been rejected by the examiner under U.S.C. § 102 as being anticipated by Vrabel et. al., U.S. Pat. No. 6,004,904. Further, claims 2-4 have been rejected by the Examiner under 35 U.S.C. § 103 as being unpatentable over Vrabel in view of Turnbull, U.S. Pat. No. 5,705,516. Claims 1-3, and 5-7 have been rejected by the Examiner under 35 U.S.C. § 103 as being unpatentable over Ferrell, U.S. Pat. No. 5,750,130. Further, claim 4 has been rejected by the Examiner under 35 U.S.C. § 103 as being unpatentable over Ferrell, in view of Turnbull.

SPECIFICATION

Applicant has made corrections to the trademark usage in the Specification. Applicant has also attached a §1.132 Declaration (See Appendix I) to further clarify the composition of BIODAC® granules.

Technology Summary

The present Application describes a pesticide composition having an enhanced pesticide release rate. The pesticide composition includes a cellulosic granular carrier, at least one agriculturally active ingredient, and at least one surfactant. It was found that presence of a specific amount of surfactant(s) in the pesticide composition radically increases the efficacy of the pesticide, with the greatest efficacy in insect control provided by a pesticide composition containing 6% or more surfactant (Application, Para [0045], Lines 6-9). As set out above, Claim 1 has been amended, changing the stated surfactant level from a lower limit of 1% to a lower limit of 4% of the composition, by weight.

REJECTIONS UNDER 35 U.S.C. § 102(b)

The Examiner rejected claims 1, and 5-7 under 35 U.S.C. § 102 as being anticipated by Vrabel et. al., U.S. Pat. No. 6,004,904.

Cited Art

Vrabel describes a method for selective control of an unwanted turfgrass or weed species in the presence of a desired turfgrass species at a turfgrass locus by employing an isoxazole compound. Vrabel describes a herbicidal granule which comprises 0.38% Compound 1 (herbicide), 1% Igegal CA630 surfactant, 1.0% Rhodofac RE610 surfactant, 7.0% N-methylpyrrolidine (solvent), and 90.62% Biodac 20/40 granules (Example 2, Col. 7). Vrabel further describes that surfactant is required in the herbicidal granule because the active ingredients (herbicides) are not water soluble, while the spraying vehicle is water. (Column 3, lines 63-65).

Analysis

Claim 1, as currently amended, recites a composition of matter useful as a pesticide which comprises 85-97% by weight of a cellulosic granular carrier, 0.01-10% by weight of at least one agriculturally active ingredient, and 4-15% by weight of at least one surfactant.

Here, Vrabel simply does not recite every element of the claimed invention. Specifically, Vrabel fails to disclose a composition containing 4-15% by weight of at least one surfactant. Instead, Vrabel discloses a composition having only 2% surfactant(s), and Vrabel nowhere else suggests any other amount of surfactant(s). The present invention, as now claimed, recites a lower limit well above Vrabel's level, and it has been shown that the difference in the amount of surfactant(s) is key to the improved performance of the product. A rejection under 35 U.S.C. § 102 requires that every element of the claim be anticipated by elements of the cited art, and therefore Vrabel fails to anticipate the claim, because that reference does not include the limitations set out in claim 1.

REJECTIONS UNDER 35 U.S.C. § 103(a)

The Examiner rejected claims 2-4 under 35 U.S.C. § 103 as being unpatentable over Vrabel, U.S. Pat. No. 6,004,904, in view of Turnbull, U.S. Pat. No. 5,705,516. Further, the Examiner rejected claims 1-3, and 5-7 under 35 U.S.C. § 103 as being unpatentable over Ferrell, U.S. Pat. No. 5,750,130. Claim 4 is rejected, by the Examiner, under 35 U.S.C. § 103 as being unpatentable over Ferrell, in view of Turnbull. As shown here, however, the combination of either Vrabel with Turnbull or the combination of Ferrell with Turnbull neither discloses nor suggests the invention as claimed.

Cited Art

Ferrell

Ferrell describes "pesticide compositions in which the pesticides and a carrier material are applied to a substrate, said carrier material providing improved adherence of the pesticide to the substrate and improved attrition resistance. The carrier compositions may also be used to control the rate of release of the pesticide to the environment." (Ferrell, Col. 1, Lines 7-14). In a specific example, Ferrell discloses that the pesticide composition includes a surfactant-wax carrier composition (75% slack wax and 25% morpholinium cocoate), and 90% active Pendimethalin. In the specific example, 19.5 lb of the 90% active pendimethalin is melted together with 12.5 lb of the surfactant-wax carrier at 82.5 degrees. (Ferrell, Example 2, Col. 5, Lines 32-40). Ferrell teaches that the rate of pesticide release is modified by altering hydrophilicity of the carrier materials. Hydrophilicity of the carrier material is controlled by the level of and the water solubility of the surfactant materials added. (Col. 4, Lines 15-22). Additionally, Ferrell teaches that the wax soluble surfactants should not interfere with the activity of the pesticides. (Col. 4, Lines 21-22).

Analysis

Claim 1

Ferrell, Vrabel, and Turnbull, alone or in combination, do not teach the limitations of Claim 1. As now amended, claim 1 calls for a specific range of surfactants: “4-15% by weight of at least one surfactant.”

Ferrell fails to disclose the range for the amount of surfactants added to the pesticidal composition; rather, that reference teaches a pesticidal composition having a surfactant-wax carrier composition and a pesticide. Ferrell, does disclose that the rate of pesticide release is modified by altering hydrophilicity of the carrier materials. However, Ferrell does not disclose the claimed amount of surfactant, leaving the present Application as the only guide for reaching the ranges claimed.

Additionally, Ferrell imposes the restriction that the wax soluble surfactants should not interfere with the activity of the pesticides. (Col. 4, Lines 21-22). This restriction limits the possible combinations of surfactants and pesticides. On the other hand, the instant Application is devoid of any such restrictions.

As discussed above, Vrabel does not disclose the claimed surfactant ranges. Likewise, Turnbull is also silent on the issue of using such specific ranges for surfactants

In the end, the only teaching setting out the ranges set out in Claim 1 is the specification of the present application. Thus, no combination of Ferrell, Vrabel, and Turnbull can possibly replicate the present invention, as none of them includes the claimed ranges. These differences preclude rejection under Section 103. It is therefore respectfully suggested that the outstanding rejection under Section 103 be withdrawn.

Dependent Claims

Claims 2-7 depend on Claim 1, shown to be allowable. It is thus respectfully suggested that claims 2-7 stand in condition for allowance as well.

CONCLUSION

It is respectfully submitted that the claims now pending in this Application stand in condition for allowance, and that action is respectfully requested. If the Examiner believes a telephonic conversation would aid the prosecution of this Application in any way, a call to the undersigned would be welcome.

Please charge all fees related to this matter to Deposit Account 08-3442.

Dated: April 15, 2009

Respectfully submitted,



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Application No. 10/582,156
Reply to Office Action mailed December 16, 2008

Attorney Docket No. 81,642

APPENDIX I